

CLAIMS

1. In a magnetic recording head comprised of (a) a substrate of an oxide, nitride or carbide of aluminum, zirconium, silicon or titanium and having (b) an overcoat comprising a film composed primarily of carbon in the essentially amorphous form and having pinholes therein exposing the substrate, wherein the improvement comprises treating the magnetic recording head with a corrosion-protective composition so as to fill the pinholes of the overcoat, the composition containing a corrosion-protective agent comprised of a metal salt of a fluorinated polyether having at least one carboxylic acid group.

2. The magnetic recording head of claim 1, wherein the fluorinated polyether is a perfluorinated polyether.

3. The magnetic recording head of claim 2, wherein the perfluorinated polyether has one carboxylic acid end group.

4. The magnetic recording head of claim 3, wherein the perfluorinated polyether has two carboxylic acid groups.

5. The magnetic recording head of claim 2, wherein the perfluorinated polyether is comprised of monomer units having the structure $\text{-CF}_2\text{-O-}$, $\text{-CF}_2\text{-CF}_2\text{-O-}$, $\text{-CF(CF}_3\text{)-O-}$, $\text{-CF(CF}_3\text{)-CF}_2\text{-O-}$, or a combination thereof.

6. The magnetic recording head of claim 1, wherein the fluorinated polyether is a linear polymer.

7. The magnetic recording head of claim 1, wherein the metal salt is an alkali metal salt.

8. The magnetic recording head of claim 1, wherein the fluorinated polyether has a number average molecular weight in the range of approximately 500 to 10,000.

9. The magnetic recording head of claim 8, wherein the fluorinated polyether has a number average molecular weight in the range of approximately 1000 to 5000.

10. The magnetic recording head of claim 9, wherein the fluorinated polyether has a number average molecular weight in the range of approximately 2500 to 3500.

11. The magnetic recording head of claim 1, wherein the improvement further comprises coating the carbon overcoat with a lubricating film of a perfluoropolyether prior to deposition of the corrosion-protective composition.